

REMARKS

In response to the Office Action mailed March 1, 2011, Applicants respectfully request reconsideration. To further the prosecution of this Application, Applicants submit the following remarks, have amended claims, and have canceled claims. The claims as now presented are believed to be in allowable condition.

Claims 1-38 were pending in this Application. Claims 11-21 and 34-36 are withdrawn from consideration. By this Amendment, claims 11-21 have been canceled. Applicants expressly reserve the right to prosecute one or more of the canceled claims and similar claims in one or more related Applications. Claims 39-43 have been added. Accordingly, claims 1-10 and 22-43 are now pending in this Application. Claims 1, 22, 28, and 37 are independent claims.

Rejections under §102 and §103

Claims 1-6, 9, 37, and 38 were rejected under 35 U.S.C. §102(b) as being anticipated by U.K Patent No. 1,104,359 to Henfrey. Claims 7, 8, and 22-27 were rejected under 35 U.S.C. §103(a) as being unpatentable over Henfrey in view of U.S. Patent No. 6,439,429 to Gross. Claim 10 was rejected under 35 U.S.C. §103(a) as being unpatentable over Henfrey in view of U.S. Patent No. 4,775,523 to Sparacio. Claims 28-33 were rejected under 35 U.S.C. §103(a) as being unpatentable over Henfrey in view of Gross, and in further view of Sparacio.

Applicants respectfully traverse each of these rejections and request reconsideration. The claims are in allowable condition.

Claims 1-10

Claim 1 relates to, in combination, a fitment and a flexible container. The combination includes a lower fitment member having a top surface with a fluid conducting opening, a wall of said flexible container disposed onto said top surface of said lower fitment member; and an upper fitment member having an upper fitment top surface, an upper fitment bottom surface and an upper fitment conduit aligned with said fluid conducting opening and disposed onto said top surface of said lower fitment member forming a fitment. The fitment is attached to the wall of the flexible container by mechanical compression.

Henfrey relates to containers formed of plastics material and more particularly to containers, such as bags fabricated from flexible tubular or sheet material (col. 1, lines 8-12). The container has an aperture adapter attached to an interior surface of the container wall so as to be positioned wholly within the container (col. 2, lines 75-79). The container 10 is formed from a tubular film of thermo plastic resinous material, such as a polythene and an aperture adapter 14 is formed from similar plastics material (col. 3, lines 20-26). The base 17 of the adapter 14 has a plurality of concentrically arranged sealing rings 19 which simplify the heat welding of the base 17 to a wall of the container 10 (col. 3, lines 36-39).

Henfrey does not teach or suggest, for example, "a fitment... being attached to [a] wall of [a] flexible container by mechanical compression," as claimed by Applicants in claim 1. While Henfrey does describe a probe 21 being inserted into adapter 14 that is attached to a bag 10, the adapter 14 is attached to the bag 10 via heat welding, not mechanical compression (col. 3, lines 36-39). Because the adapter 14 is attached to the bag 10 via heat welding, the materials of the adapter 14 and the bag 10 must be made of similar plastic materials (col. 3, lines 25-26). This requirement for heat welding and for use of similar plastic

materials has disadvantages that were recognized by Applicants and described in in Applicants' background section on page 3, lines 4-16:

Currently [in the prior art], the fitment is placed at the periphery of the bag between two layers of the bag and the fitment and the inner plastic layer of the flexible container or bag are melted to each other. This requires that the fitment material and the bag material have similar melting points. This limitation requires that the fitment is typically made of a low melting point plastic, such as polyethylene. A primary disadvantage of the fitment material is that the fitment material typically has a higher oxygen permeability than the film material. In other words, the fitment is a "hole" in the sealed bag. The permeability characteristic of the fitment material is much poorer than the similar characteristic for the laminated film used to make the flexible container. Thus, the fitment is often the weakest part of the barrier characteristics of the flexible container. Another disadvantage is that the heat sealing process tends to damage the barrier layer, which can lead to inconsistent performance.

In contrast to the heat welding connection described in Henfrey, the use of mechanical compression to attach the fitment to the wall of the flexible container, such as in Applicants' claim 1, allows the fitment to be made of a low oxygen permeability and reduces the propensity for damage to the wall of the flexible container that heat welding can lead to.

In particular, The Applicants' specification in paragraph [0043] describes the above discussed advantage of mechanical compression attachment by stating, "Because the flexible container material 70 is not heat sealed to the fitment 10, a low gas permeable material can be used for fitment 10. In the present invention, fitment 10 is preferably made of an acrylonitrile methyl acrylate copolymer available under the trademark Barexe™ 210 from Barex Resins, Naperville, Ill."

Additionally Gross and Sparacio, do not cure the deficiencies of Henfrey. In particular, Gross describes bonding the fitment 70 is preferentially bonded to the pouch 60 via ultrasonic bonding and does not describe the use of mechanical compression (col. 6, lines 1-4). Additionally, Sparacio does not even describe fitments attached to flexible containers.

Therefore, one would not arrive at the features of claim 1 by reference to a combination of prior art documents, and the solution of claim 1 is novel and non-obvious.

Claims 22-27

Claim 22 relates to a method of providing an improved flexible bag and fitment combination. The method includes obtaining a fitment having a lower fitment member with a top surface and a fluid conducting opening in said top surface, an upper fitment member having an upper fitment bottom surface with an upper fitment fluid opening, and positioning said top surface of said lower fitment member on one side of a wall of said flexible container. The method also includes positioning said upper fitment bottom surface of said upper fitment member on the opposite side of said wall and opposed to said lower fitment member wherein said upper fitment fluid opening is axially aligned with said fluid conducting opening of said lower fitment member, and compressing said lower fitment member and said upper fitment member together; and securing said lower fitment member and said upper fitment member together forming a fluid tight seal with said flexible container.

The combination of Henfrey and Gross does not teach or suggest, "compressing said lower fitment member and said upper fitment member together; and securing said lower fitment member and said upper fitment member together forming a fluid tight seal with said flexible container," as claimed by Applicants in claim 22. For reasons similar to those discussed with

respect to claim 1 (i.e., Henfrey describes sealing the adapter 14 to the bag 10 via heat welding, not by compression; and Gross describes bonding fitment 70 to the pouch 60 via ultrasonic bonding, not by compression), one would not arrive at the features of claim 22 by reference to a combination of prior art documents, and the solution of claim 22 is novel and non-obvious.

Claims 28-33

Claim 28 relates to a method of increasing the shelf life of a fluid material packaged in a flexible bag. The method includes obtaining a fitment made of a material with a low gas permeability, said fitment having a lower fitment member with a top surface and a fluid conducting opening in said top surface, an upper fitment member having an upper fitment bottom surface with an upper fitment fluid opening, said fluid conducting opening and said upper fitment fluid opening defining a fluid passageway, and positioning said top surface of said lower fitment member on one side of a flexible film, said flexible film being made of a multi-layered material having at least a barrier layer. The method also includes positioning said upper fitment bottom surface of said upper fitment member on the opposite side of said wall and opposed to said lower fitment member wherein said upper fitment fluid opening is axially aligned with said fluid conducting opening of said lower fitment member, and compressing said lower fitment member and said upper fitment member together. The method also includes securing said lower fitment member and said upper fitment member together forming a fluid tight seal with said flexible container, and sealing peripheral edges of said flexible film forming a first flexible bag with a fitment thereon.

The combination of Henfrey, Gross, and Sparacio does not teach or suggest, “compressing said lower fitment member and said upper fitment member together; [and] securing said lower fitment member and said upper fitment member together forming a fluid tight seal with said flexible container,” as claimed by Applicants in claim 22. For reasons similar to those discussed with

respect to claim 1 (i.e., Henfrey describes sealing the adapter 14 to the bag 10 via heat welding, not by compression; Gross describes bonding fitment 70 to the pouch 60 via ultrasonic bonding, not by compression; and Sparacio does not describe any type of fitment that is compressed to form a seal with a flexible container), one would not arrive at the features of claim 28 by reference to a combination of prior art documents, and the solution of claim 28 is novel and non-obvious.

Claims 37-38

Claim 27 relates to a fitment kit for use with a flexible bag. The kit includes a lower fitment member having a fluid conducting opening in a top surface of said lower fitment member, and an upper fitment member having an upper fitment bottom surface and an upper fitment opening, said upper fitment opening forming a fluid conduit with said fluid conducting opening of said lower fitment member. The upper fitment bottom surface and said top surface of said lower fitment member is configured to form a mechanical seal between said lower fitment member, a wall of said flexible bag and said upper fitment member.

Henfrey does not teach or suggest, “said upper fitment bottom surface and said top surface of said lower fitment member is configured to form a mechanical seal between said lower fitment member, a wall of said flexible bag and said upper fitment member,” as claimed by Applicants in claim 37. For reasons similar to those discussed with respect to claim 1 (i.e., Henfrey describes sealing the adapter 14 to the bag 10 via heat welding), one would not arrive at the features of claim 37 by reference to a combination of prior art documents, and the solution of claim 37 is novel and non-obvious.

Newly Added Claims

Claims 39-42 have been added and are believed to be in allowable condition. Claim 39 depends from claim 1, claim 40 depends from claim 22,

claim 41 depends from claim 28, and claim 42 depends from claim 37. Support for claims 39-42 is provided within the Specification, for example, on page 10, line 8 through page 11, line 2. No new matter has been added.

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Conclusion

In view of the foregoing remarks, this Application should be in condition for allowance. A Notice to this effect is respectfully requested. If the Examiner believes, after this Amendment, that the Application is not in condition for allowance, the Examiner is respectfully requested to call the Applicants' Representative at the number below.

Applicants hereby petitions for any extension of time which is required to maintain the pendency of this case. If there is a fee occasioned by this Amendment, including an extension fee, the Patent Office is respectfully requested to contact the undersigned collect at (603) 668-1971, in Manchester, New Hampshire.

Respectfully submitted,

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